## CHM 151LL PRACTICE MAJOR QUIZ 2

1. Balance and classify the following reactions as combination, decomposition, single replacement, double replacement, or combustion;

A) 
$$\_C_4H_{10(1)} + \_O_{2(g)} \rightarrow \_CO_{2(g)} + \_H_2O_{(g)}$$

B) 
$$P_2O_{5(1)} + H_2O_{(1)} \rightarrow H_3PO_{4(aq)}$$

C) 
$$\_Al(ClO_3)_{3(s)} \rightarrow \_AlCl_{3(s)} + \_O_{2(g)}$$

D) 
$$\_Br_{2(1)} + \_ZnI_{2(s)} \rightarrow \_ZnBr_{2(s)} + I_{2(s)}$$

$$E) \quad \_NaI_{(aq)} + \_Pb(NO_3)_{2(aq)} {\rightarrow} \_PbI_{2(s)} + \_NaNO_{3(aq)}$$

2. Complete and balance the following reactions:

$$A) \quad \_(NH_4)_3PO_{4(aq)} + \_KNO_{3(aq)} \rightarrow$$

B) 
$$\_Ag_{(s)} + Al(NO_3)_{3(aq)} \rightarrow$$

C) 
$$_{C_3H_7OH_{(1)}} + _{O_{2(g)}} \rightarrow$$

D) 
$$Cl_{2(g)} + \_CaBr_{2(aq)} \rightarrow$$

E) 
$$H_3AsO_{4(aq)} + NaOH_{(aq)} \rightarrow$$

Which reactions will actually take place?

3. For the given balanced chemical equation:

$$Na_6FeCl_8(s) + 2Na(l) \rightarrow 8NaCl(s) + Fe(s)$$

- A) Which element is oxidized? \_\_\_\_
- B) Its oxidation number changes from \_\_\_\_\_ to \_\_\_\_
- C) Which element is reduced? \_\_\_\_\_
- D) Its oxidation number changes from \_\_\_\_\_ to \_\_\_\_.
- E) Which reactant is the oxidizing agent?
- F) Which reactant is the reducing agent?